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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,449	06/01/2006	Peter Huntemann	291257US0PCT	2170
22850	7590	05/05/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			KASHNIKOW, ERIK	
			ART UNIT	PAPER NUMBER
			1782	
			NOTIFICATION DATE	DELIVERY MODE
			05/05/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/581,449	<b>Applicant(s)</b> HUNTEMANN ET AL.	
	<b>Examiner</b> ERIK KASHNIKOW	<b>Art Unit</b> 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12/03/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) 11-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm et al. (6,387,447) in view of Kitagawa et al. (JP 63-264676).

3. Grimm et al. teach coatings for offshore pipes (column 2 lines 5-10).

4. In regards to claims 11 and 13 Grimm et al. teach that the coating for the pipes comprises polyurethane formed from an isocyanate compound, hollow microbeads, as well as a polyol (OH number 36) and castor oil component (example 1) .

5. In regards to claim 12 Grimm et al. teach the addition of diethylene glycol to the mixture for forming the polyurethane (example 1).

6. In regards to claim 15 Grimm et al. teach a coating thickness of 45mm for the polyurethane layer (column 4 line 25).

7. In regards to claim 16 Grimm et al. teach the process for forming the offshore pipe (column 3 line 31 to column 4 line 32).

8. While Grimm et al. teach the pipe and the process for making the pipe as discussed above they are silent regarding Applicant's desired concentrations and viscosity.

9. Kitagawa et al. teach pipes for use in an undersea environment (ABS) wherein the pipe is coated by a polyurethane coating (column 1 lines 9-11).

10. In regards to claims 11 and 17-20 Kitagawa et al. teach that the polymeric elastomers can be polyurethane (Constitution). Kitagawa et al. teach that the polyurethane can be formed from a mixture that includes a polyisocyanate, castor oil and a polyol (Constitution). Croft teaches that the castor oil be present at concentrations of 50-95 percent by weight which overlaps with applicant's ranges.

11. In regards to claim 21 as Grimm et al, and Kitagawa et al. teach the same materials in the instantly claimed concentrations they would necessarily have the same hydrolytic stability. It is further noted that the Kitagawa et al. reference specifically mention that the pipes coated with the coating of their invention have improved properties when exposed to salt water (ABS).

12. In regards to claim 14 absent a showing of criticality with respect to "viscosity" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "viscosity" through routine experimentation to values, including those presently claimed, in order to achieve "an optimal viscosity of the reactive mixture which allows for effective coating of the pipe". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

13. One of ordinary skill in the art at the time of the invention would be motivated to modify the coated pipes of Grimm et al. with the polymer of Kitagawa et al, because the pipe of Grimm et al. which are able to withstand pressures of 50 bar and temperatures

above 120°C would benefit from the increased physical, chemical and salt water resistance of the coating of Kitagawa et al.

### ***Response to Arguments***

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. It is further noted that the new secondary reference teaches a castor oil range that overlaps with Applicants instantly claimed range. It is noted that the Kitagawa et al. reference does disclosed increased saltwater stability.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow  
Examiner  
Art Unit 1782

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1782